

AMENDMENTS TO THE CLAIMS

Please replace the claims, including all prior versions, with the listing of claims found below.

Listing of Claims:

1. (Currently amended) A solid-state image sensing apparatus, comprising:
 - a solid-state image sensing device outputting an electrical signal proportional to an intensity of incident light, the solid-state image sensing device configured for outputting a first signal converted linearly to the intensity of the incident light and a second signal converted natural-logarithmically to the intensity of the incident light;
a plurality of color filters provided in the solid-state image sensing device, wherein the first signal and the second signal output from the solid-state image sensing apparatus comprise a plurality of color signals;
a first signal processing circuit supplied with the first signal from the solid-state image sensing apparatus device and performing a predetermined signal processingwhite balance adjustment of the first signal; and
a second signal processing circuit supplied with the second signal from the solid-state image sensing apparatus device and performing a predetermined signal processingwhite balance adjustment of the second signal, wherein a dynamic range of the second signal is adjusted at the second signal processing circuit thereby a contrast of the second signal is improved.
2. (Currently amended) A solid-state image sensing apparatus having a solid-state image sensing device that outputs an electrical signal proportional to an intensity of incident light, the solid-state image sensing device configured for outputting a first signal converted linearly to the intensity of the incident light and a second signal converted natural-logarithmically to the intensity of the incident light, comprising:
a plurality of color filters provided in the solid-state image sensing device, wherein the first signal and the second signal output from the solid-state image sensing apparatus comprise a plurality of color signals;
a first signal processing circuit supplied with the first signal from the solid-state image sensing apparatus device and performing a predetermined signal processingwhite balance

adjustment of the first signal;

a second signal processing circuit supplied with the second signal from the solid-state image sensing apparatus device and performing a predetermined signal processing white balance adjustment of the second signal, wherein a dynamic range of the second signal is adjusted at the second signal processing circuit thereby a contrast of the second signal is improved;

a logarithmic/linear conversion circuit converting a signal output from the second signal processing circuit to a signal linearly proportional to the intensity of the incident light; and

a third signal processing circuit supplied with a signal from the first signal processing circuit and a signal from the logarithmic/linear conversion circuit.

3. (Canceled)

4. (Original) The solid-state image sensing apparatus as claimed in claim 2, wherein the first signal processing circuit performs gamma correction of the first signal, and the second signal processing circuit performs gamma correction of the second signal.

5. (Canceled)

6. (Currently Amended) A solid-state image sensing apparatus, comprising:

a solid-state image sensing device outputting an electrical signal proportional to an intensity of incident light, the solid-state image sensing device configured for outputting a first signal converted linearly to the intensity of the incident light and a second signal converted natural-logarithmically to the intensity of the incident light;

a plurality of color filters provided in the solid-state image sensing device, wherein the first signal and the second signal output from the solid-state image sensing apparatus comprise a plurality of color signals;

a logarithmic/linear conversion circuit converting the second signal to a signal linearly proportional to the intensity of the incident light; and

a signal processing circuit supplied with the first signal and a signal from the logarithmic/linear conversion circuit, said signal processing circuit performing white balance adjustment of the first signal and the second signal, wherein a dynamic range of the second signal is

adjusted at the signal processing circuit thereby a contrast of the second signal is improved.

7. (Withdrawn) The solid-state image sensing apparatus as claimed in claim 6, wherein a plurality of color filters are provided in the solid-state image sensing device, and the first signal and the second signal output from the solid-state image sensing apparatus each comprise a plurality of color signals, and

the signal processing circuit performs white balance adjustment of the supplied signals.

8. (Withdrawn) The solid-state image sensing apparatus as claimed in claim 6, wherein the signal processing circuit performs gamma correction of the supplied signals.

9. (Withdrawn) A solid-state image sensing apparatus having a solid-state image sensing device that outputs an electrical signal proportional to an intensity of incident light, the solid-state image sensing device configured for outputting a first signal converted linearly to the intensity of the incident light and a second signal converted natural-logarithmically to the intensity of the incident light, comprising:

a first signal processing circuit supplied with the second signal from the solid-state image sensing apparatus and performing a predetermined signal processing;

a linear/logarithmic conversion circuit converting the first signal to a signal natural-logarithmically proportional to the intensity of the incident light; and

a second signal processing circuit supplied with a signal from the first signal processing circuit and a signal from the linear/logarithmic conversion circuit.

10. (Withdrawn) The solid-state image sensing apparatus as claimed in claim 9, wherein a plurality of color filters are provided in the solid-state image sensing device, and the first signal and the second signal output from the solid-state image sensing apparatus each comprise a plurality of color signals, and

the second signal processing circuit performs white balance adjustment of the supplied signals.

11. (Withdrawn) The solid-state image sensing apparatus as claimed in claim 9,

wherein the second signal processing circuit performs gamma correction of the supplied signals.

12. (Withdrawn) The solid-state image sensing apparatus as claimed in claim 9, wherein a dynamic range of the second signal is adjusted at the first signal processing circuit.

13. (Withdrawn) A solid-state image sensing apparatus, comprising:

a solid-state image sensing device outputting an electrical signal proportional to an intensity of incident light, the solid-state image sensing device configured for outputting a first signal converted linearly to the intensity of the incident light and a second signal converted natural-logarithmically to the intensity of the incident light,

a linear/logarithmic conversion circuit converting the first signal to a signal natural-logarithmically proportional to the intensity of the incident light; and

a signal processing circuit supplied with the second signal and a signal from the linear/logarithmic conversion circuit.

14. (Withdrawn) A solid-state image sensing apparatus having a solid-state image sensing device that outputs an electrical signal proportional to an intensity of incident light, the solid-state image sensing device configured outputting a first signal converted linearly to the intensity of the incident light and a second signal converted natural-logarithmically to the intensity of the incident light, comprising:

a first signal processing circuit supplied with the first signal from the solid-state image sensing apparatus and performing a predetermined signal processing;

a second signal processing circuit supplied with the second signal from the solid-state image sensing apparatus and performing a predetermined signal processing;

a linear/logarithmic conversion circuit converting a signal output from the first signal processing circuit to a signal natural-logarithmically proportional to the intensity of the incident light; and

a third signal processing circuit supplied with a signal from the second signal processing circuit and a signal from the linear/logarithmic conversion circuit.

15. (Withdrawn) A solid-state image sensing apparatus as claimed in claim 14, wherein

a plurality of color filters are provided in the solid-state image sensing device, and the first signal and the second signal output from the solid-state image sensing apparatus each comprise a plurality of color signals,

the first signal processing circuit performs white balance adjustment of the first signal, and the second signal processing circuit performs white balance adjustment of the second signal.

16. (Withdrawn) The solid-state image sensing apparatus as claimed in claim 14, wherein the first signal processing circuit performs gamma correction of the first signal, and the second signal processing circuit performs gamma correction of the second signal.

17. (Withdrawn) A solid-state image sensing apparatus as claimed in claim 14, wherein a dynamic range of the second signal is adjusted at the second signal processing circuit.

18. (Currently Amended) An image sensing apparatus, comprising:
a solid-state image sensing device controlled to output a first signal and a second signal linearly and logarithmically proportional to an intensity of incident light; and
a plurality of color filters provided in the solid-state image sensing device, wherein the first signal and the second signal output from the solid-state image sensing apparatus comprise a plurality of color signals; and
a signal processing circuit receiving the first and second signals, the signal processing circuit processing a first signal and a second signal using a first predetermined signal processing and a second predetermined signal processing, respectively,
wherein the first predetermined signal processing comprises white balance adjustment of the first signal, and the second predetermined signal processing comprises white balance adjustment of the second signal,
wherein a dynamic range of the second signal is adjusted through the second predetermined signal processing thereby a contrast of the second signal is improved.

19. (Original) The image sensing apparatus of claim 18, the signal processing circuit further comprising:

a first signal processing circuit receiving the first signal from the solid-state image sensing

device and performing at least a portion of the first predetermined signal processing; and
a second signal processing circuit receiving the second signal from the solid-state image sensing device and performing at least a portion of the second predetermined signal processing.

20. (Original) The image sensing apparatus of claim 19, the signal processing circuit further comprising:

a third signal processing circuit receiving the first and second signals processed by the first and second signal processing circuits, respectively, and performing at least a portion of the first and second predetermined signal processing on the first and second signals, respectively.

21. (Withdrawn) The image sensing apparatus of claim 19, wherein said first signal processing circuit includes a linear/logarithmic conversion circuit, and wherein said second signal processing circuit receives the first signal processed by the first signal processing circuit.

22. (Withdrawn) The image sensing apparatus of claim 19, wherein said second signal processing circuit includes a logarithmic/linear conversion circuit, and wherein said first signal processing circuit receives the second signal processed by the second signal processing circuit.